



Seamless Transition to 64-bit Platform Enables Rapid Growth for mySAP.com Environment



Solution Summary

VTG-Lehnkering* has moved seamlessly to a high-performance future-proof 64-bit platform capable of handling its existing logistics applications while accommodating large-scale and rapid growth.

Industry

Logistics.

Company Profile

VTG-Lehnkering is a leading specialised logistics company based in Hamburg, a subsidiary of Hapag-Lloyd* AG.

Challenge

A need for high performance and a reduction in total cost of solution, with memory addressability beyond four gigabytes and a secure growth path that would enable migration of logistical applications to the Windows 64-bit platform running on Intel-based servers.

Solution

mySAP.com* and Windows/SQL Server 64-bit running on two Compaq* Proliant* DL590 industry servers for the SAP R/3* database and central unit and a Proliant DL580 Server as a standby database.

Products

Hardware: Compaq Proliant with Intel® Itanium™ processors

Software: mySAP.com

Microsoft* SQL Server 64-bit running on Microsoft Windows* Advanced Server LE

The Solution Provider

Electronic Computer Service AG (ECS).

Benefits

Increase in memory allocations four gigabytes RAM, the ability to display system resources in the whole load area despite rapidly increasing user numbers and significant cost savings through simpler maintenance and familiar Windows-based format.



Business Challenge

VTG-Lehnkering, a subsidiary of Hapag-Lloyd AG, is a leading specialised logistics company based in Hamburg, Germany. By the third quarter of 2001 it became clear that a significant technology upgrade was needed to accommodate the company's expanding requirements.

VTG-Lehnkering wanted a planned strategic road-map for its IT strategy, backed up by expandable and future-proof technology.



www.vtg-lehnkering.com

Performance and scalability

One of the key requirements for VTG-Lehnkering was high performance with memory addressability beyond four gigabytes. Secondly, the company required a secure growth path for the future. The aim was to enable migration of its logistical applications to the Windows 64-bit platform running on Intel-based servers.

The challenge for the IT departments was to make the software available by January 1st, 2002, for an average number of users. At the same time, all system components were required to be scalable to a load up to four times as great, and beyond. That was only possible with a platform which would be able to make sufficient resources available both in the midrange area and also in very large environments.

e-Business Solution

For help in tackling these issues, VTG-Lehnkering turned to Electronic Computer Service AG (ECS), the system integrator with which it had an existing relationship.

Full service provision

ECS AG is a full service provider and system integrator for IT in the following business areas: consulting, IT services and IT distribution for hardware and software. Its registered offices are in Hamburg, with subsidiary companies in Berlin, Frankfurt, Düsseldorf and Munich. In addition, ECS has a network for technical services.

The Business Consulting area develops and integrates IT asset management and e-Procurement solutions and e-Business applications. Competence Centres for SAP, system integration and enterprise computing/storage technologies further extend the offer of services. Managed Services bundles the services in the interests of the customer and ensures optimal availability of server landscapes and PC workstations.

Project rollout

The project started in October 2001 with discussions between VTG-Lehnkering, ECS, Compaq and Microsoft. Intel and SAP were involved in the background. The aim of going live on January 1st, 2002, presented the partners with a tough time-scale.

By mid-October, contracts and a project plan had been prepared. This included a scenario for loss of service, clarification of all technical issues, and a decision by VTG-Lehnkering to opt for the Windows/SQL Server 64-bit platform.

The plan was to use two Compaq Proliant DL590 industry servers based on the Intel Itanium processor for the SAP R/3 database and central unit and a Proliant DL580 Server based on the Intel® Xeon™ processor as a standby database. Linking the 64-bit systems to the cluster was planned for summer 2002.

Quality assurance

From the outset, the project was supported by binding guarantee declarations from the manufacturers involved – Compaq and Microsoft. Meanwhile, SAP took up VTG-Lehnkering into its First Productive Customer Programme, giving it special status and high priority.

Preparation for 64-bit

During November, testing of the Intel Itanium processor on Compaq pre-series hardware began at ECS's SAP Competence Centre. As well as preparing the 64-bit systems, ECS developed a scenario for loss of service based on a 32-bit SQL Server standby database.

At this time, SAP resolved minor faults in the kernel, with repair times ranging between a few hours and a few days. The customer's status as First Productive Customer made this possible.

Installation

Installation of the Compaq hardware in the VTG-Lehnkering computer centre, and installation of all system components, took place in December 2001. Tests were then concluded according to plan.

The loss of service scenario was activated and the standby system replaced the production server. In this type of situation, security and service are guaranteed by a further standby database on additional installed hardware.

Production systems

In January 2002, ECS went into production on Intel's 32-bit server architecture. Just two months later, VTG-Lehnkering switched to a full Itanium processor production environment on Compaq ProLiant DL 590 four-processor servers.

By the end of February, faults were rectified. Comprehensive tests then showed that there were no further obstacles to switching to production mode. In March 2002, the production system for VTG-Lehnkering was switched from 32-bit to 64-bit.

At CeBIT fair in Hannover Intel announced the first installation of mySAP.com and SQL Server 64-bit running on an Itanium processor-based Compaq ProLiant Server and a 64-bit Windows* platform.

"The Intel 64-bit processors are the basis for the next generation of industry servers. We see in our projects that large software applications are already reaching the limits of traditional server architectures. That applies especially for SAP products and larger database applications. For that reason, we have begun to familiarise ourselves with these products at an early stage."

**Roman Mielinski,
IT director at VTG-Lehnkering.**

Technology

Hardware:

Server: 2x Compaq ProLiant DL 590/64, each with 4 Itanium 800 MHz processors with 4 MB L3 cache and 4 GB RAM
(<http://www.compaq.com/products/servers/proliantdl590/index.html>)

Hard disks in the Compaq Storage Area Network (approximately 500GB) based on Compaq Enterprise Modular Array 12000
(<http://www.compaq.de/produkte/storage/control/array/ma8000.htm>)

Software

mySAP.com

Microsoft SQL Server 64-bit
running on Microsoft Windows
Advanced Server LE

Problem resolution

The .Net Server 64-bit and Microsoft SQL Server 64-bit products running on the Intel Itanium platform brought several important advantages to the project. It was possible for the first time to eliminate completely previous problems with memory allocations above two or three gigabytes of RAM. Meanwhile, the system resources could be displayed in the whole load area, even with rapidly increasing user numbers. Thanks to the unrestricted data consistency, 32-bit and 64-bit databases can be combined with one another, for example to develop the high availability component SQL Server standby database.

Meanwhile, there are significant cost-savings because the largely maintenance-free SQL Server guarantees minimal expenditure on administration. The surface design of the operating system and the family relationship with existing Windows systems has reduced the cost of training for the administrators at the VTG-Lehnkering computer centre to practically zero.

Future-proof

VTG-Lehnkering is confident that it has made the right decision in opting for an Intel-based platform with its scalability and future-proof architecture. "The Intel 64-bit processors are the basis for the next generation of industry servers," says Roman Mielinski, IT director at VTG-Lehnkering. "We see in our projects that large software applications are already reaching the limits of traditional server architectures. That applies especially for SAP products and larger database applications. For that reason, we have begun to familiarise ourselves with these products at an early stage."

"The solution has also given VTG-Lehnkering an edge over the competition", Mielinski adds. "By implementing MS SQL Server 64-bit on an Intel Itanium processor-based Compaq DL590 machine, we were able to get the memory addressability we needed to run our mySAP.com applications more efficiently. We're confident about the extended competitive advantage that Itanium processors promise to deliver as our platforms develop over time."

Intel is also delighted with the deployment, and the fact that it demonstrates the enormous potential of the Itanium processor for companies seeking an architecture for the future. Mike Fister, senior vice president and general manager of Intel's Enterprise Platforms Group, says: "The performance, scalability and reliability of Itanium based solutions is exemplified by this deployment. This solution illustrates the industry's enthusiasm to migrate to the Itanium processor family in order to reap the price/performance benefits that companies like VTG-Lehnkering require providing the investment protection to grow into the future."

Lessons Learned

- Companies need a careful strategic planning for scalable and future proof technology that will accommodate growth and allow for large-scale expansion.
- Successful development and implementation requires key goals, for example VTG-Lehnkering wanted a system available by January 1st, 2002, for an average number of users, but with the ability to scale to a load up to four times as great, and beyond. Tough time-scales focus the mind.
- Professional relationships with systems integrators such as ECS can prove invaluable in helping with efficient and effective system development. Both companies know each other well and are accustomed to working together.
- Testing is crucial. ECS developed a scenario for loss of service based on a 32-bit SQL Server standby database, and the fact that it gave VTG-Lehnkering First Productive Customer status helped resolve minor problems very fast.
- A move to 64-bit technology brings crucial advantages such as large increases in memory allocations and the ability to display system resources in the whole load area, even with rapidly increasing user numbers.
- There are also major cost-savings through simpler maintenance and much reduced training requirements for IT staff thanks to existing knowledge of Windows.

COMPAQ

Microsoft

ECS

Intel e-Business Network members featured in this Case Study: Microsoft, Compaq, ECS

intel